

Category	Gene	Name	Function	Ref
Signaling	MEN1	Menin	Part of CCKR signaling; inactivation favors tumorigenesis of mammary cells	Teinturier, Abou Ziki et al. 2021
Signaling	YWHAB	14-3-3 protein beta/alpha	Part of EGF, FGF, CCKR signaling; stimulates cell growth	Takahara, Matsuda et al. 2000
Signaling	SEN3	Sentrin-specific protease 3	Involved in processing of sumoylated proteins; high levels associated with poor survival in breast cancer	Graves, Lee et al. 2020
Signaling; apoptosis	MAPK15 (ERK8)	Mitogen-activated protein kinase 15	Part of PDGF, TGF-beta, EGF, FGF, IFG signaling; downregulation activates cell motility in breast cancer	Chia, Tham et al. 2014
Signaling; growth	CADM4	Cell adhesion molecule 4	Cell-cell adhesion; low expression associated to advanced breast cancer stages	Saito, Goto et al. 2018
Metabolism	TXNIP	Thioredoxin-interacting protein	Tumor supressor; low expression in breast cancer	Chen, Ning et al. 2020
Transcriptional regulator	ETS2	Protein C-ets-2	Regulators of telomerase for breast cancer cell survival, promotes hTERT expression	Xu, Dwyer et al. 2008
Transcriptional regulator	RARG	Retinoic acid receptor gamma	Downregulated in tumors; silencing causes tamoxifen resistance in breast cancer	Mendes-Pereira, Sims et al. 2012
Transcriptional regulator	VEZF1	Vascular endothelial zinc finger 1	Regulator for angiogenesis in cancer	Yin, Guo et al. 2018
Chromatin binding	KDM6B (JMJD3)	Lysine-specific demethylase 6B	Demethylation of lysine 27 in histone H3; inhibits metastasis in breast cancer cells	Xun, Gao et al. 2021